

Explanation of role of Expert Groups.

Expert Groups consist of industry representatives and are facilitated by FSA staff. The Expert Groups provide outputs for discussion at the Credit Risk Standing Group with the overall aim of providing proposals for the FSA to consider.

Expert Group paper on Loss Given Default Mortgages

This paper was prepared by the Expert Group on Loss Given Default Mortgages for discussion at the November Credit Risk Standing Group (CRSG).

Executive Summary

The general approach for the implementation of LGD in the UK is proposed in the LGD Other Expert Group paper, where UK industry supports

- A flexible and principles-based approach to the implementation of LGD to particular asset classes, portfolios or jurisdictions which reflect proportionality, relevance, materiality and reasonableness in the application of the principles.
- Recognition that downturn estimates of LGD will not always be higher than the default weighted LGD (DWLGD) and therefore, the use of downturn estimates should not be presupposed to be necessary in capital requirement calculations.
- The LGD Other EG notes that when demonstrating that estimates of LGD are sufficiently conservative, the asset cycle may be more important than general macro-economic risk drivers for some models. The EG therefore seeks recognition that subject to firms being able to justify that their choice of LGD drivers are appropriate for their model, DWLGD may be used where, for example, movements in the asset class are counter-cyclical to general macro-economic conditions.

However, in relation to the previous two points, the Mortgage EG concludes that Residential Real Estate is an asset class where downturn LGD is relevant and it should be used.

- Application of the principles should be based on minimum standards to allow methodologies and approaches to develop over time. Given the diverse methodologies, policies and processes applied across UK industry, the late finalisation of requirements and relative infancy of standards for LGD estimation, consistency in application at the outset is unlikely to be achieved and is not necessarily desirable. It should be for firms to determine and justify their approach for the estimation of LGD and for supervisors to challenge outliers through peer group comparison.

This Mortgage EG supports the general principles of the LGD other EG. Both EGs recognise that firms will use different approaches for the estimation of LGD for different asset classes. Proposals in this paper relate specifically to the application of LGD to the Residential Real Estates asset class (RREAC) in the UK.

As firms generally have a better understanding of the valuation cycle and a richer data set for the RREAC in the UK compared to other asset classes, portfolios or jurisdictions, these proposals look to develop where possible, minimum requirements for the estimation of DLGD in this asset class.

The Mortgage EG concludes that an understanding of the LGD both before and after the application of downturn conditions is beneficial, and the group agrees that the last property recession (late 1980s to early 1990s) is a relevant measure of downturn for the RREAC. Whilst agreeing with the LGD other EG, that firms should undertake their own assessment of DLGD as part of their model development, validation and calibration, the group concludes that there is value in UK industry developing some minimum guidelines for the assessment and application of downturn conditions for this asset class in the UK.

In this paper, the EG will propose two approaches, a minimum requirements “House Price Index” approach and a more sophisticated “Scenario” approach, where both recognise that the last housing recession should be a reference point when estimating the severity of a future downturn.

Introduction

1. Background

1. The Capital Requirements Directive (CRD)/Basel 2 Advanced approach to the management of credit risk and calculation of regulatory capital uses Loss Given Default (LGD) as the second parameter in the supervisory formula.
2. The CRD¹ requirements for IRB, including LGD are laid down in Article 84(2). The requirements for the assignment and estimation methodology are laid down in Annex VII Part 4,².
3. The Basel Committee on Banking Supervision requirements for the own estimation of LGD are laid down in Paragraph 468 of the Basel II framework³ and the “Guidance on the estimation of LGD (Paragraph 468 of the framework document)” published in July 2005.
4. The Commission for European Banking Supervisors consultation paper (CP 10)⁴ sets down guidance on the meaning and the implementation of the minimum requirements as set out in the CRD for using Internal Ratings Based approaches, including LGD. This EG supports the comments on CP10 made in the LGD Other Expert Group Paper⁵.

Objective of the Expert Group

5. The LGD Mortgage Expert Group (EG) was established in July 2005 to facilitate dialogue between the industry and the supervisor and to discuss a number of regulatory challenges, including
 - a. Recognition of the inconsistency in the regulatory capital outputs for the RREAC in the QIS 3 exercise.
 - b. The need to reflect economic downturn conditions in the estimation of LGD.

¹ Adoption of proposal for new capital requirements regime for credit institutions and investment firms. BCBS. 14.07.2004

² For assignment, Paragraphs 1-4,9,11-12,14-19 and 31 and for estimation Paragraphs 49-52, 54, 73-80 and 83-83

³ International Convergence of Capital Measurement and Capital Standards : A Revised Framework, BCBS, June 2004

⁴ “Guidelines on the implementation, validation and assessment of Advanced Measurement (AMA) and Internal Ratings Based (IRB) Approaches reflect a common understanding among European supervisors of the requirements for processing, assessing, and making decisions on the application of an institution to use an Advanced Measurement (AMA) or an Internal Ratings Based (IRB) approach for regulatory purposes.

⁵ LGD Other Expert Group Paper, November 2005.

6. The objectives of the paper are
 - a. To bring together the objectives of both the supervisor and industry in the development of agreed approaches to LGD estimation for the RREAC.
 - b. To seek consensus over concepts of Downturn LGD (DLGD) for the RREAC and propose a possible approach for the calculation of DLGD which meets these minimum requirements.
 - c. To develop an approach which accommodates the need for prudential capital soundness in the assessment of downturn conditions and the need for forward looking estimates for sound risk management.
 - d. To develop practical approaches to the use of data in the estimation of DLGD for RREAC.
 - e. To consider minimum requirements for the Use Test in relation to LGD for RREAC
7. The proposals made in the paper seek to inform supervisors at both the national and European level (through membership of CEBS), regarding the minimum standards and parameters for implementation of LGD in relation to the RREAC.

Scope of the Expert Group

8. The discussions and recommendations of this EG are limited to the LGD arising from Residential Real Estate collateral (RREC) held in support of exposures in the RREAC, in the UK. The group have not considered the following
 - a. Commercial Real Estate,
 - b. Other retail asset classes,
 - c. RREC held in support of other retail or wholesale exposures,
 - d. Other jurisdictions.
9. The requirements for participation in QIS5 are outside the scope of this EG.

Structure of the Paper

To meet these objectives, the paper is divided into the following sections;

2. Definition of Economic downturn and LGD
3. Implementation
4. Allocation
5. Use Test
6. Next Steps

2. Definition of Economic Downturn and LGD

10. The guidance to Paragraph 468 of the Basel Framework requires that estimates of LGD must "reflect economic downturn conditions where necessary to capture the relevant risks", and requires that "supervisors will continue to monitor and encourage appropriate approaches to this issue." Having reviewed the guidance to P.468, the EG agrees that whilst the magnitude of a future

downturn is unknown, a downturn could occur again in this asset class and as a result the requirements of P.468 are relevant. The group agrees that an understanding of the LGD both before and after the application of downturn conditions, and in the future, is beneficial to understanding and comparing LGDs for this asset class. The EG agrees that it can not be specific about the severity of a future downturn, however, the last property recession (late 1980s to early 1990s) should be a reference point when estimating the severity of a future downturn. The group concludes that the requirements of P.468 can be applied in the UK,

11. The EG agrees that whilst the precise nature of the last recession (late 1980s-early 1990s) can not fully represent the severity of future downturns, the analysis of data, lending practice and market behaviour from this period does inform firms of the key drivers of downturn and possible magnitude of the impact of future events in this asset class.
12. The EG notes that the approach to the estimation of DLGD for this asset class needs to accommodate the different approaches to LGD modelling undertaken by UK industry. They support firms undertaking their own assessment and application of DLGD as part of their model development, validation and calibration. There should be no set benchmark of downturn across the industry with results instead being discussed and assessed on a bilateral basis between firms and their supervisor.
13. The EG agrees that there is value in UK industry developing some minimum requirements for the assessment and application of downturn conditions for this asset class in the UK. The group explored two approaches. The first, the “House Price Index” approach proposes a methodology for the assessment and application of downturn conditions based on minimum requirements. The second, the “Scenario” approach is more statistical in nature. Here firms will model the impact and severity of downturn conditions through scenarios and simulations. Both approaches recognise that the last housing recession is a reasonable event to consider in understanding downturn.

2.1 Economic Downturn Conditions

2.1.1 The recession of the early 1990s

14. The last housing recession was first and foremost the result of macroeconomic forces. Between 1988 and 1990 base rates doubled from 7.5% to 15%. This was followed by falling output and rising unemployment (see Charts 1-3 in Appendix 1⁶). Against a background of lower inflation than in the previous two recessions (in the mid 1970s and early 1980s), UK nominal house prices showed the first sustained fall since the 1950s (a fall in real house prices for a portfolio reflective of the CML data of around 30%). Key drivers within this recession were the co-incidence of macroeconomic factors – a combination of sharply higher mortgage interest costs, higher unemployment and falling house prices. The EG concludes that experience has consistently shown that initial LTV is one of the best predictors of future losses. Even though arrears are caused by other factors (loss of income or rising mortgage payments), those borrowing 100% are likely to lack any track record of regular saving and have no financial stake in their property. They are therefore most vulnerable to shocks such as rising interest rates or falling house prices.
15. Perhaps the most significant challenge is one that is beyond lenders control, namely that the macroeconomic environment is not constant. The volatility of unemployment, inflation and interest rates (both short and long term) has fallen since the last property recession but house prices have remained volatile and they now stand at historically high levels relative to incomes. Whilst an exact

⁶ Source Council of Mortgage Lenders

repetition of the previous downturn is unlikely, an adjustment for a future downturn event of a similar proportion is valid for this asset class.

2.1.2 Industry Benchmark of downturn from historic loss data

16. The EG considered the benefits of an industry benchmark which could serve as a useful comparison for both firms and the FSA. The group considered analysis undertaken by the BOE⁷ of losses for this asset class from the last property recession. This data set, based on the loss experience of 7 large (unidentified) lenders showed a wide variation. The EG concludes that the level of dispersion in the estimates (relating to differences in definitions, and different experience with MIG payouts, for example), precludes this data from serving to provide an industry wide benchmark for DLGD estimation.

2.1.3 House Price Index (HPI) Approach

17. Having recognised that the last housing recession is a reasonable downturn event, this approach uses evidence from previous recessions to stress the portfolio in line with a fall in the nominal value of an appropriate current house price index. The approach proposes that adjustments are made to underlying drivers of LGD, where relevant (e.g. through an adjustment to the underlying value of the asset (LTV)), not through an adjustment to the final estimated LGD. In practice it is most likely that firms will choose to model an 'in use LGD' for internal purposes and then stress a key driver to calculate the downturn 'regulatory' LGD.
18. The EG recognises that a number of choices exist within this approach which could result in diverse LGD estimates. Choices for i) the size of the downturn, ii) real vs. nominal values and, iii) the cycle of downturn, i.e. 'peak' to 'trough' or long run average.
19. The group agrees that minimum standards within this approach must give firms flexibility to reflect specifics of their own portfolio.
 - a) **Size of the downturn.** The EG do not support prescription over the level of the stress applied to portfolios. Firms should consider the relevance and extent of the downturn seen in the external data in comparison to their own portfolio given its structure and firm specific drivers of LGD. Firms will need to evidence and justify to the satisfaction of the supervisor how similar their current portfolio is to the portfolio taken as representative of the downturn and adjust accordingly to confirm that their assessment incorporates a reasonable degree of conservatism. The EG concludes firms may (but they will not be obliged to) consider separate DLGDs for sub products or geography (i.e. regional variation) taking into account the mix of the portfolio.
 - b) **Real or Nominal Values.** The EG considered whether this approach should be based on the "real" or "nominal" value. The group concludes that the nominal value should be used as this will ultimately drive LTV and actual credit losses within the portfolio. By taking this approach, firms must recognise the current inflation environment in the magnitude of the stress they apply, as for example, an event of a similar severity to the last recession occurring today would be likely to give rise to larger falls in nominal values than those seen in a high inflation environment.
 - c) **Peak to Trough or Long Run Average.** The EG concludes that P.468 defines the point of the downturn as being the year in which the most credit losses are observed. In line with this, and to reflect conservatism, the EG proposes that the downturn covers the cycle between 'peak' and the 'trough', rather than long run averages.

⁷ 2003 Paper on Historical Mortgage Experience, Robert Hudson, August 2005.

2.1.4 Scenario Approach

20. As an alternative to the HPI approach, firms may chose to statistically model the severity of future downturns. If so, then the previous property recession could still be a relevant point of reference for severity. Here firms may, for example, use historical data to calculate the ‘in use LGD’ before applying the model scenario which estimates the severity of the downturn, thus producing the ‘regulatory’ DLGD. Under this approach the EG do not support prescription regarding minimum standards on how firms simulate the downturn, to enable firms to reflect portfolio specific drivers of LGD in their methodologies.

2.1.5 Examples

21. The EG has adapted examples drafted (but not published) with the guidance to P.468, to provide examples of the application of both the House Price Index and Scenario approaches, see Appendix 2. These are intended to provide additional guidance for firms and should not be included in BIPRU.

2.2 Drivers of LGD

22. Generally industry supports the flexible approach on drivers proposed in CP10. The EG also concludes that in addition to the impact on downturn, firms would need to consider the impact of drivers specific to this asset class on the recovery rate. Firms will not justify drivers excluded from the assessment; instead they will evidence and explain to the satisfaction of the supervisor, that relevant drivers have been used in the estimation of LGD in their specific portfolio.

2.3. Forward looking LGDs

23. The EG agrees that it should be possible to determine forward looking LGDs from either approach by adjusting the DLGD to demonstrate that it takes account of the likely future events in relation to the drivers detailed under section 2.2. The group also supports the principle that future adjustments reflect the current position in a downturn cycle i.e. conceptually it would be expected that the stress applied for the downturn is higher towards the peak of the cycle. The EG concludes that no further guidance is required on this issue in BIPRU.

3. Implementation

3.1 Data

24. The EG supports the use of house price indices in line with the principles outlined in the CP05/03⁸ and the FSA feedback statement⁹.

3.2 Discount Rates

25. The EG agrees with the LGD other EG that the use of the contractual rate as the discount is conceptually inappropriate. Once a downturn LGD has been estimated, thus accounting for systemic risk, it is assumed that an appropriate level of conservatism has already built in to the estimate. Therefore, the group proposes that the discount rate for this asset class should be close to the risk free rate, so long as firms can evidence and justify sufficient conservatism in their estimation of the downturn. One potential approach to a discount rate for this asset class could be the risk free rate

⁸ Paragraph 5.14, CP05/03, Strengthening Capital Standards, January 2005.

⁹ Paragraph 5.16, Strengthening Capital Standards, Feedback on CP05/3, September 2005.

plus an appropriate premium¹⁰. The EG does not propose the application of a standard discount rate for this asset class as firms will need to assess the appropriate rate in line with their wider methodology and firms' specific policy (i.e. some firms may hold RREC for disposal once the market has recovered, with other firms' policy being for a quick exit in the market trough). The EG recognises the additional systems development would be required to apply multiple discount rates, but the group concludes that firms should not be prevented (if satisfied over the cost/benefit of system enhancement) from having the flexibility to use multiple discount rates if they so choose.

3.3 Supervisory Review

26. The EG supports the LGD Other EG's proposal that firms' implementation and assessment of LGD downturn conditions for the RREAC is best delivered through the supervisory review process, and industry will continue to work closely with the supervisor on establishing the boundaries between Pillar 1 and Pillar 2.

4. Allocation

4.1 Costs and Collateral:

27. The EG supports the comments of the LGD other EG in relation to the allocation of collateral and treatment of indirect costs. The mandatory requirement to allocate corporate overheads at infinite levels of granularity is onerous and the EG rejects the inclusion of marginal "indirect" costs in the estimation. The EG also seeks recognition that only material costs are apportioned and recommends that implementation of CEBS guidance (P.205-206) should allow for a broader assessment of what costs would be considered relevant.

4.2 Recovery Rates

28. Given the firm specific influence of drivers of LGD, the EG seeks recognition from the supervisor that ultimate recovery rates for the RREC will not always be linked to cyclical macro-economic factors and as a consequence the group does not support prescription on how the asset recovery and credit cycle move together. As such, the EG does not support prescription on how RRE values move with the credit cycle.

4.3 Apportionment and its impact on LGD estimates

29. The EG supports the principles and proposals in the LGD Other Expert Group paper in relation to the monitoring and apportionment of RREC.

4.4 Timing

30. The EG recognises that the time between the distress/default point and recovery/collection will change over the course of the economic cycle and that the commercial and legal position of individual defaults may effect repossession.

31. The EG concludes that it will be up to each individual firm to evidence and explain to the satisfaction of the supervisor that they have allowed for future structural changes and volatility in their estimates of the impact of timing on collection.

¹⁰ For example, the accord suggests capitalisation at the 99.9% confidence level. A bank may reasonably conclude that a (sufficiently granular) portfolio of defaulted assets with all systemic risk removed (through application of downturn LGD) could, in theory, be sold in the same way as other securitised assets. In this case one possible discount rate would be that of a corporate security capitalised to the accord confidence level (approximately A-).

32. The EG recommends flexibility the inclusion of incomplete workout cases in their estimates of LGD, as generally this is inappropriate for the liquidation of most mortgage loans.
33. The EG recognises that incomplete workout cases may be easier to implement in a retail context, where the accounting provision may be a reasonable proxy for the unclosed element of LGD. The supervisor is asked to confirm that subject to any required adjustments for conservatism that this could be taken as an approximate/best estimate.

4.5 Cures

34. The EG agrees with the principle of flexibility proposed by the LGD other EG as here firms also indicate a number of different approaches to the treatment of cures, with no single solution evident for this asset class.

5. Use Test

35. This EG supports the principles proposed in the LGD other EG paper in relation to firms having a number of LGDs is use for the RREAC as DLGD can not be used in certain business contexts, e.g. pricing, risk assessment, validation.

6 Next Steps

36. The EG understands that the following further work on DLGDs is planned. The validation sub-group of the Accord Implementation Group is due to address DLGDs early next year and in Europe, CEBS is planning to begin work on LGD later this year. The EG believes it has a continuing role going forward to review work undertaken in the international arena.

Appendix 1

Source: Council of Mortgage Lenders

Chart 1 – Base rates and arrears

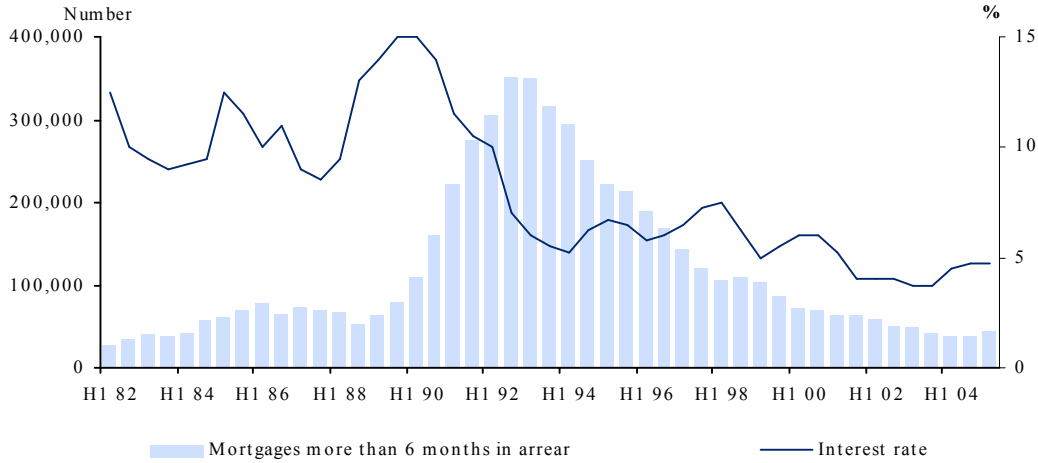


Chart 2 – Unemployment and arrears

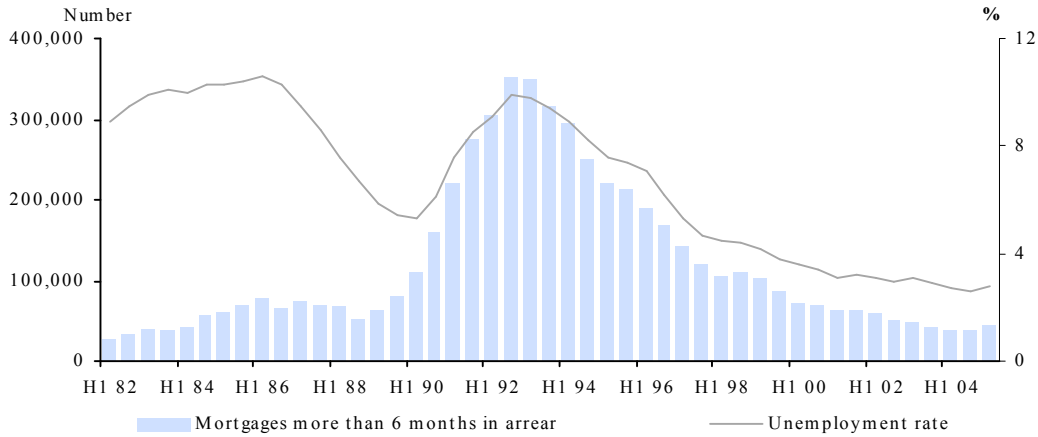
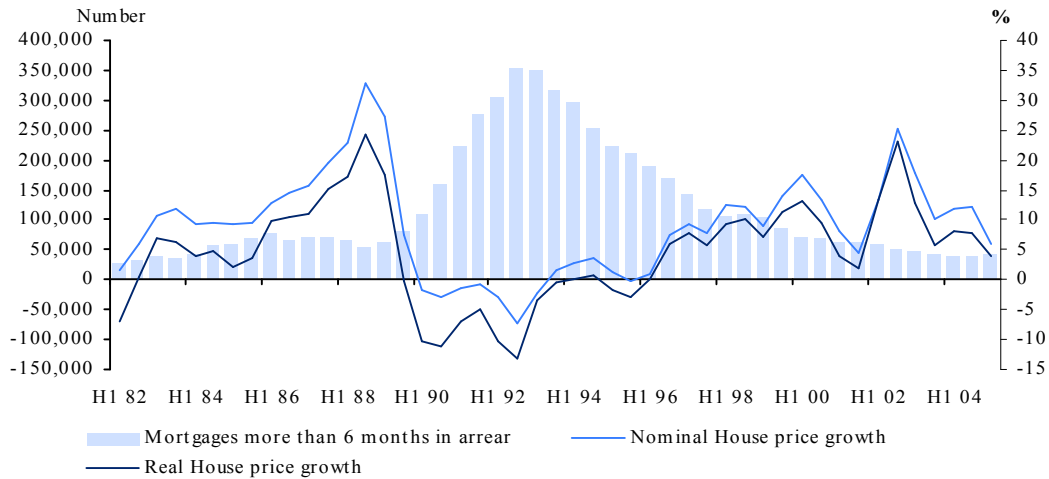


Chart 3 – House prices and arrears



Appendix 2

House Price Index Approach

The bank has a large portfolio of residential mortgages. Cycles in the housing market may stretch over long periods and, although the bank has loss data covering more than five years, this does not include a period of economic downturn. National statistics covering a much longer period are, however, available from the Council of Mortgage Lenders or other national source. Using these data, the bank identifies a period of the last property recession of the late 1980s to early 1990, as a period when credit loss rates on residential mortgages were clearly above the average for the country as a whole. The bank looks further at regional statistics relevant to the areas where its business is concentrated and sees that the patterns are consistent.

The bank then analyses public data relating to the behaviour of default rates and recovery rates during the period of high credit losses and the years surrounding it. Whilst the bank observes some lags between the worst periods for default rates and for recovery rates, it is nevertheless clear that there is a tendency for both to be worse than average at the same time.

The bank therefore decides to analyse the factors that cause recovery rates on residential mortgages to decline during periods of economic downturn. As collateral value plays the major role in determining recoveries, the bank looks at publicly available statistics from the Council of Mortgage Lenders on the peak to trough movements in nominal house prices that occurred during the last property recession. It is able to see that there was a fairly consistent percentage decline of 30% in real house prices in the UK (recognising that different inflation environments will translate to different nominal house price scenarios). The bank then considers how relevant this decline is in relation to their portfolio and region where its business is concentrated. It then chooses a percentage decline which reflects any variance to the wider UK view as the basis for a stress test of a key risk driver of LGD for this asset class (i.e. collateral values). In addition, the bank considers how other factors such as the cost-of-carry, length of the work-out period, impact of inflation and other loss mitigants (i.e. insurance) might change during a market downturn. It is then able to construct a scenario for how the amount that it can recover from its residential mortgage collateral might behave during economic downturn conditions and hence obtain an appropriate estimate of LGD.

By combining external data on the behaviour of collateral values with knowledge of its own portfolio and processes, the bank is able to derive a suitable interim estimate of downturn LGD that it can use until such time as it has sufficient loss data of its own.

Scenario Approach

At this point, the bank does not have sufficient internal data to span a significant downturn for its portfolio of residential mortgages. The following represents the bank's interim attempt to incorporate downturn conditions into internal estimates of LGDs.

The bank is a nationally diversified mortgage lender. It selected from its internal data a *Y* year span of recovery cash flows that included experiences from several localised markets that had faced mild downturn conditions. Yet, because of the very localised nature of these downturns and the generally positive conditions for most of the portfolio, the mortgage portfolios as a whole would not have been considered under downturn conditions during the reference data period.

Using external data the bank determined that a sharp and sustained rise in mortgage defaults had occurred over a one-and-half-year period several years before the start of its own internal data history. The increase in defaults at this time resulted from, among other things, a combination of a widespread rise in unemployment and falling house prices in several of its large local markets as well as stagnant house prices in most of its other markets. Because of these conditions, losses on mortgage foreclosures rose sharply during this period.

Statistical models of the behaviour of key risk drivers in the downturn were simulated by the bank to calibrate the severity of the last property recession and to estimate the recovery rate under those conditions on its current mortgage portfolio. (Paragraph 468 permits the use of models, under appropriately conservative assumptions, to forecast LGD, and Principle 1a permits the bank to base the analysis at the supervisory asset class level.) For

example, it found that the LGD estimated during the stress period was Z percentage points higher than the base one it estimated over the Y -year reference data set. This distress period difference was then applied to convert the internally measured LGD to a downturn condition LGD for each segment.